T-Mobile

Candidates Comparison

SF13054A

Belmont Water Tank

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Synopsis

Below are the 4 candidates discussed in this document.

A – Belmont Water Tank (the proposed candidate) at Lyon and Mezes Aves.
B – JPA pole at 1802 Bayview Ave.
C – Grace Mission Evangelical Church along Alameda de Las Pulgas
D – Cingular JPA collocation at 1999 Notre Dame Ave.

Candidate A is the proposed candidate while the other 3 were not pursued, mainly due to coverage issues. Other additional problems typically facing proposed wireless facilities include landlord willingness and/or structural capability.

The water tank will provide the best coverage area because of elevation, ground height and surrounding obstruction. There are 3 sectors for the proposed candidate with 2 antennas per sector for a total of 6 antennas.

Candidate B will only have one good sector that is pointing south. Westward will be mostly isolated to Bayview Ave. while eastward will be dissipated by the trees.

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Candidate C sits on a much lower elevation compared to the other 3, as well as to its surroundings. Antenna height here is as much as the JPA poles will provide. Its coverage will be limited by the height and terrain. The 3rd sector pointing northeast would be particularly ineffective.

Candidate D would have a slightly more useful west and east sector compared to Candidate B, but Candidate B would have a better south sector. Candidate C's coverage is not close to the coverage of Candidate A due to lower elevation (around 40 feet) and ground height (around 20 feet). That's about 60 feet total.

Candidate D also poses specific structural problems besides inadequate coverage. For example, 3 T-Mobile sectors would translate to at least 3 antennas and 3 microcell cabinets the size of which are the same as the existing Cingular's. This would bring to 5 antennas and 6 cabinets total to a single JPA pole. There would also be separate utility boxes for T-Mobile.

Candidate A, in addition to providing superior coverage, will also be able to accommodate increases in traffic with the proposed 6 antennas. Otherwise, combiners will have to be added for capacity expansion. Additional combiners would mean more attenuation, thus shrinking the coverage area.

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4 Candidates

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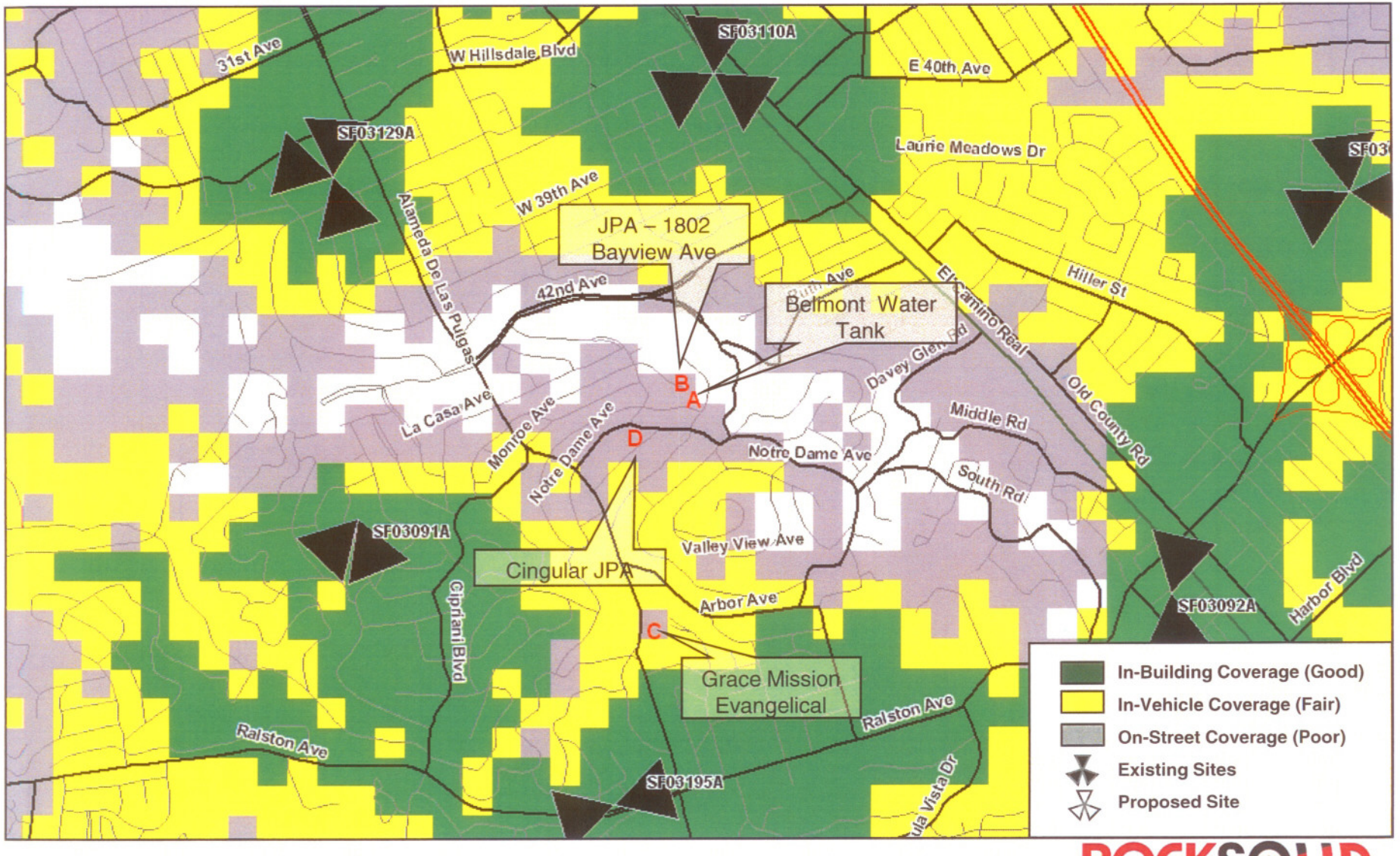
Existing Coverage



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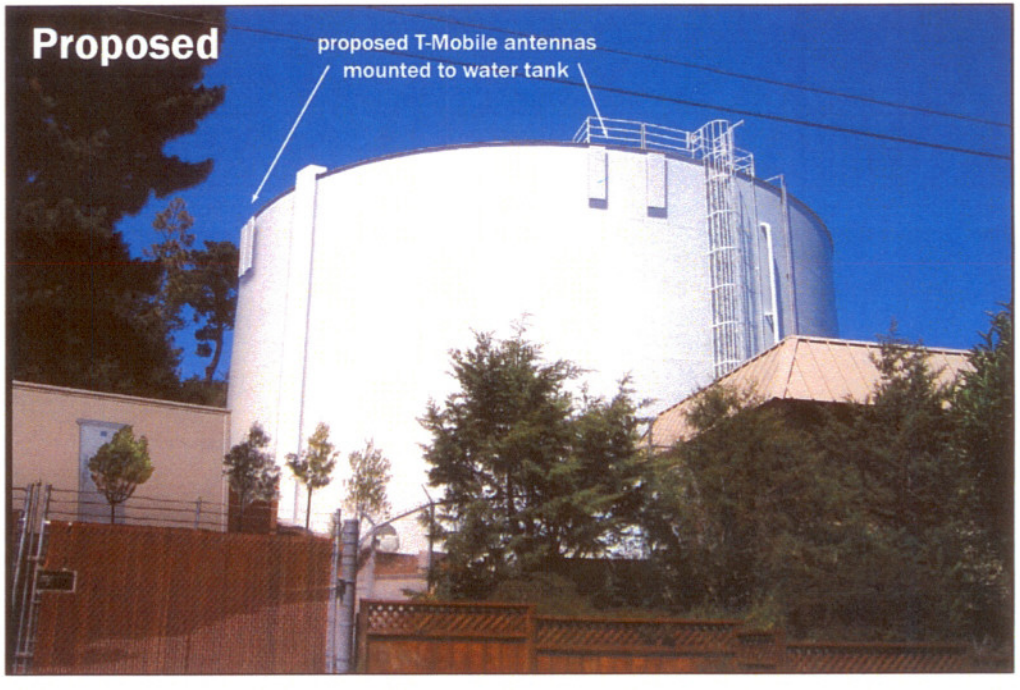
A: Belmont Water Tank

antennas 43 feet high



The above photo taken from here

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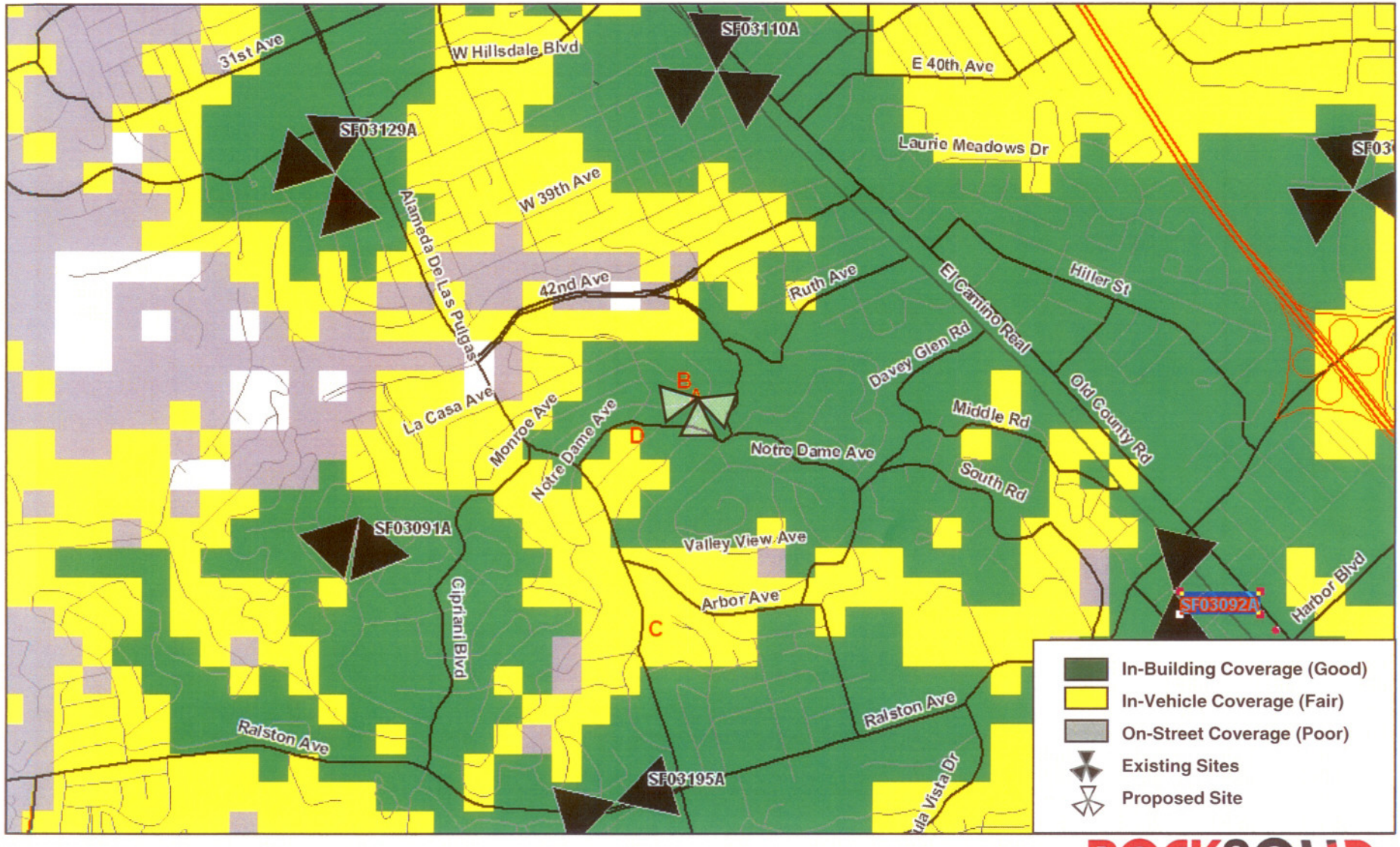
Coverage with Candidate A



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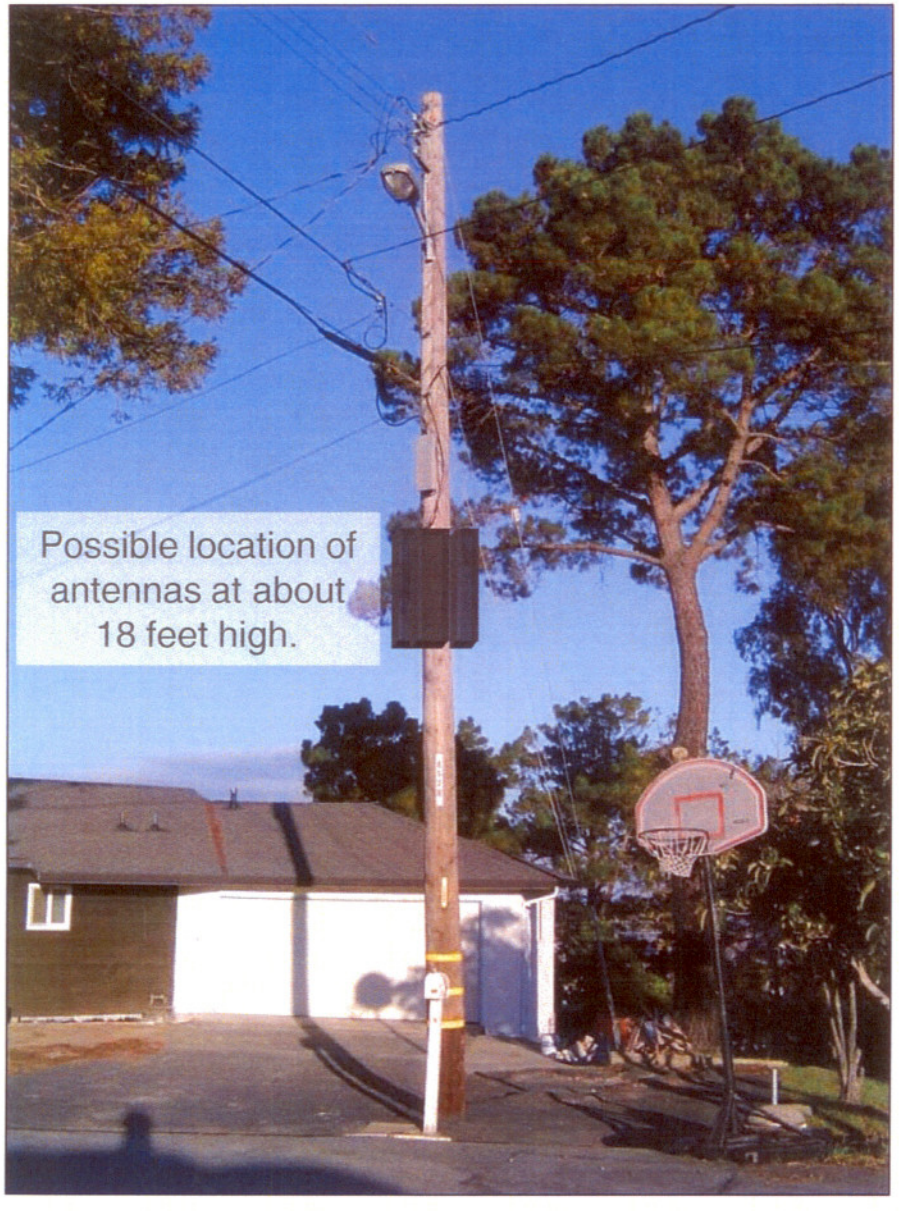
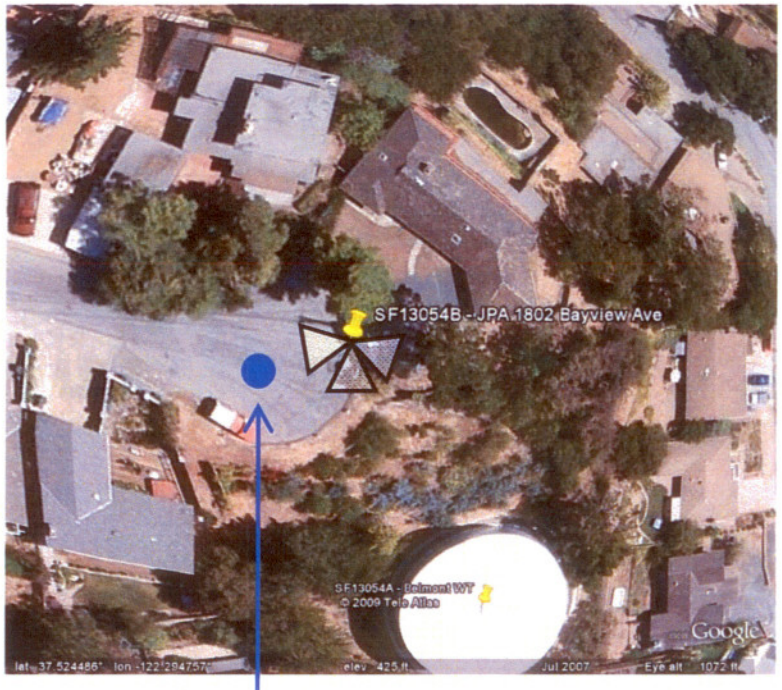
B: JPA Pole – 1802 Bayview Ave.





The photo on left taken from here

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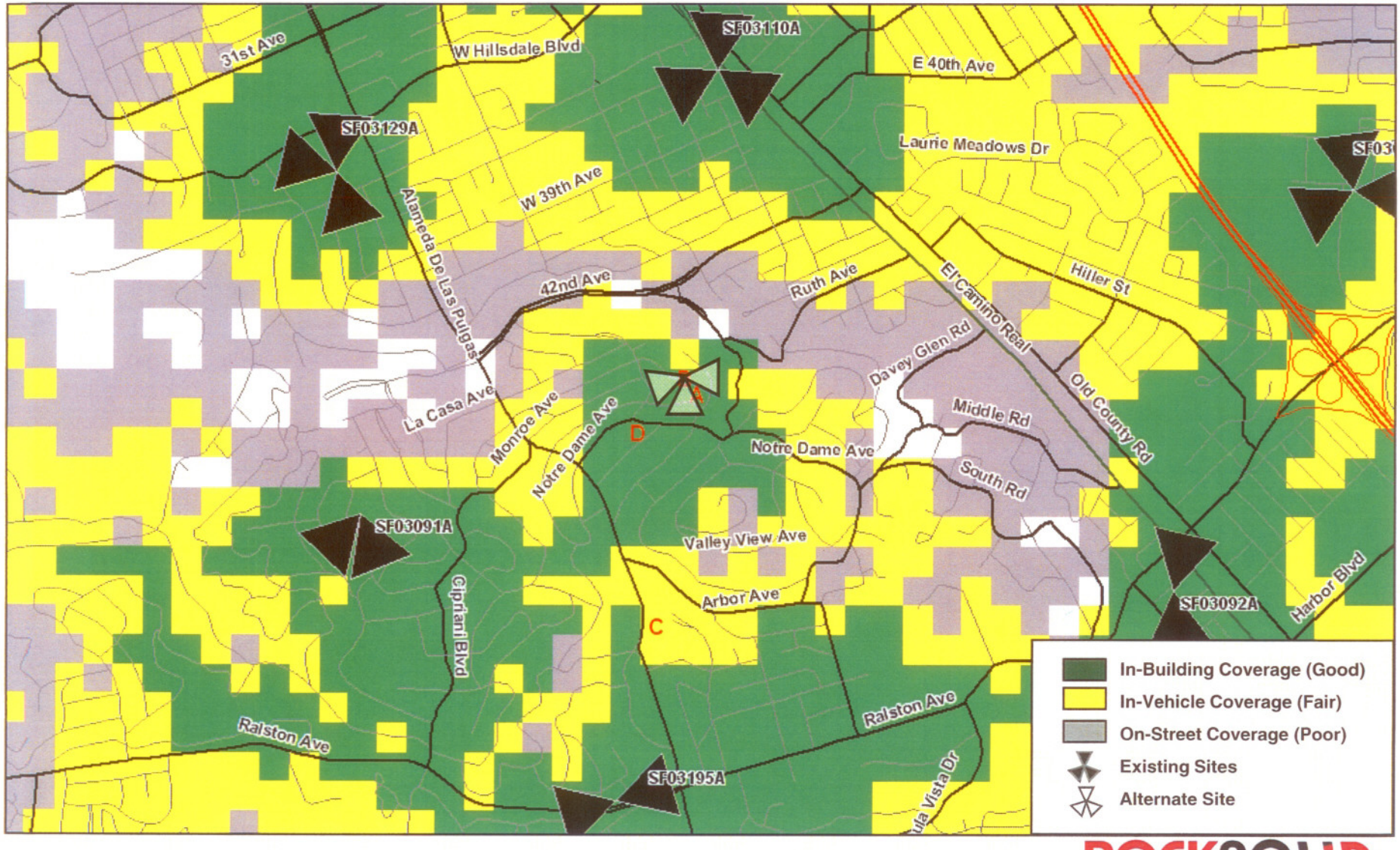
Coverage with Candidate B



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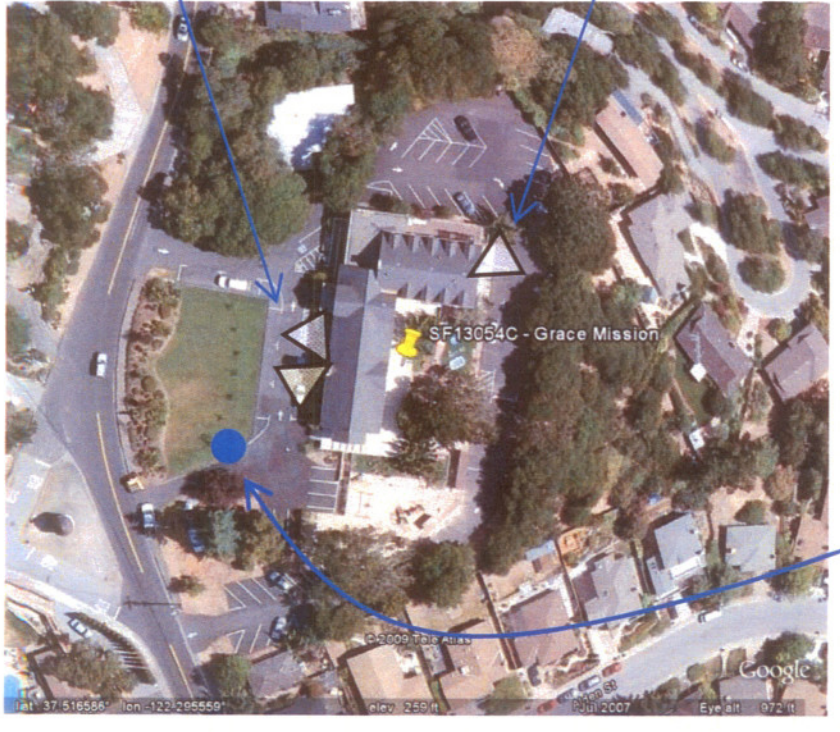
C: Grace Mission Church

This part to be replaced with a different material but will look the same. To house 2 antennas inside.

This antenna is unlikely.



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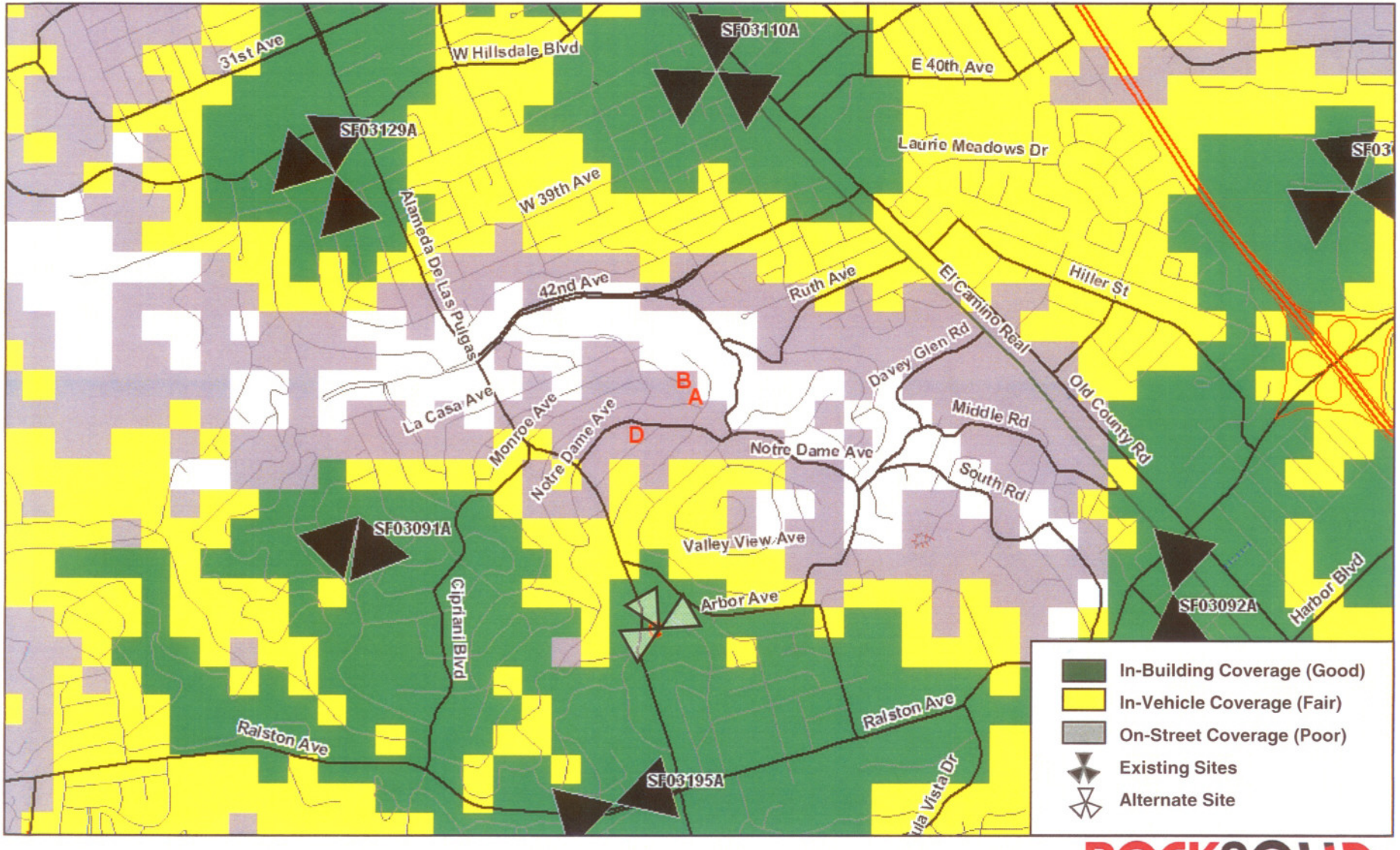
Coverage with Candidate C



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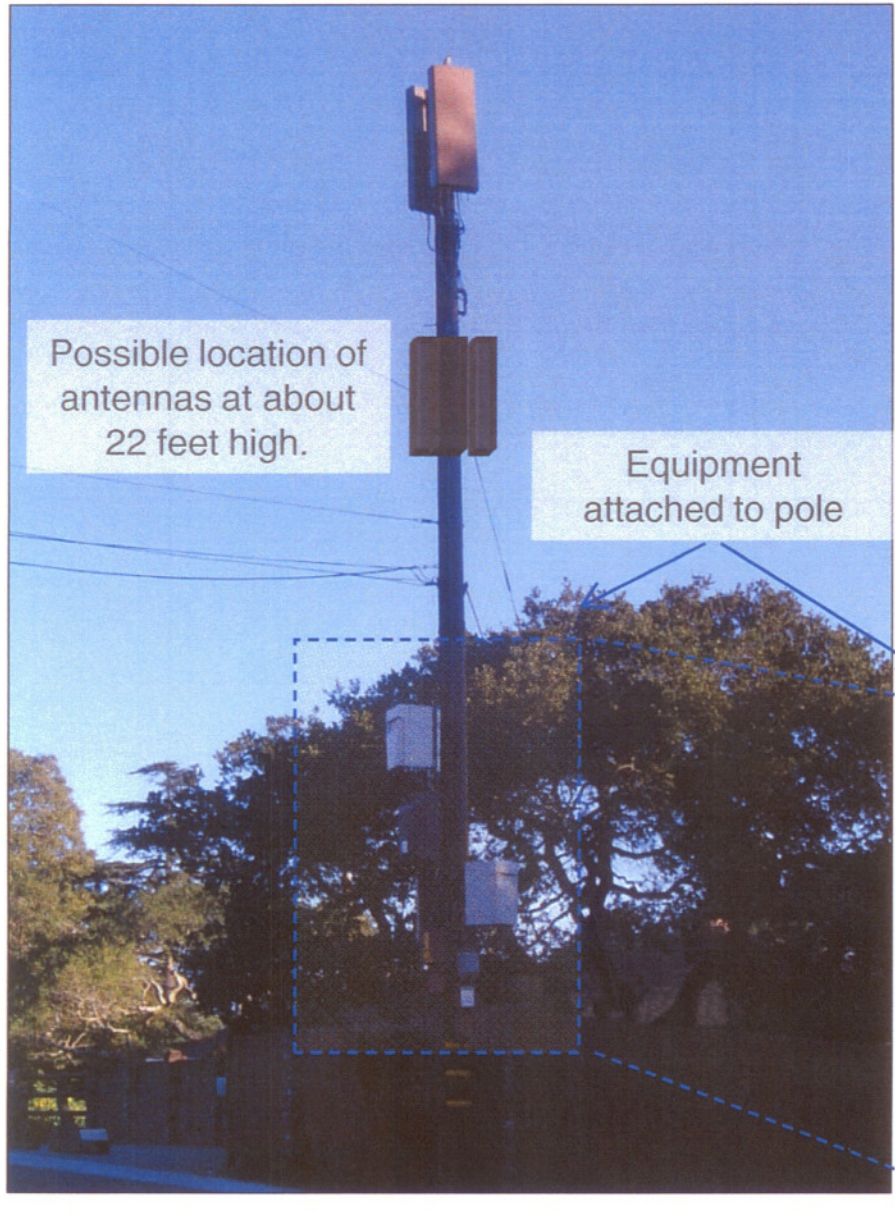
D: JPA Pole – Cingular Colo



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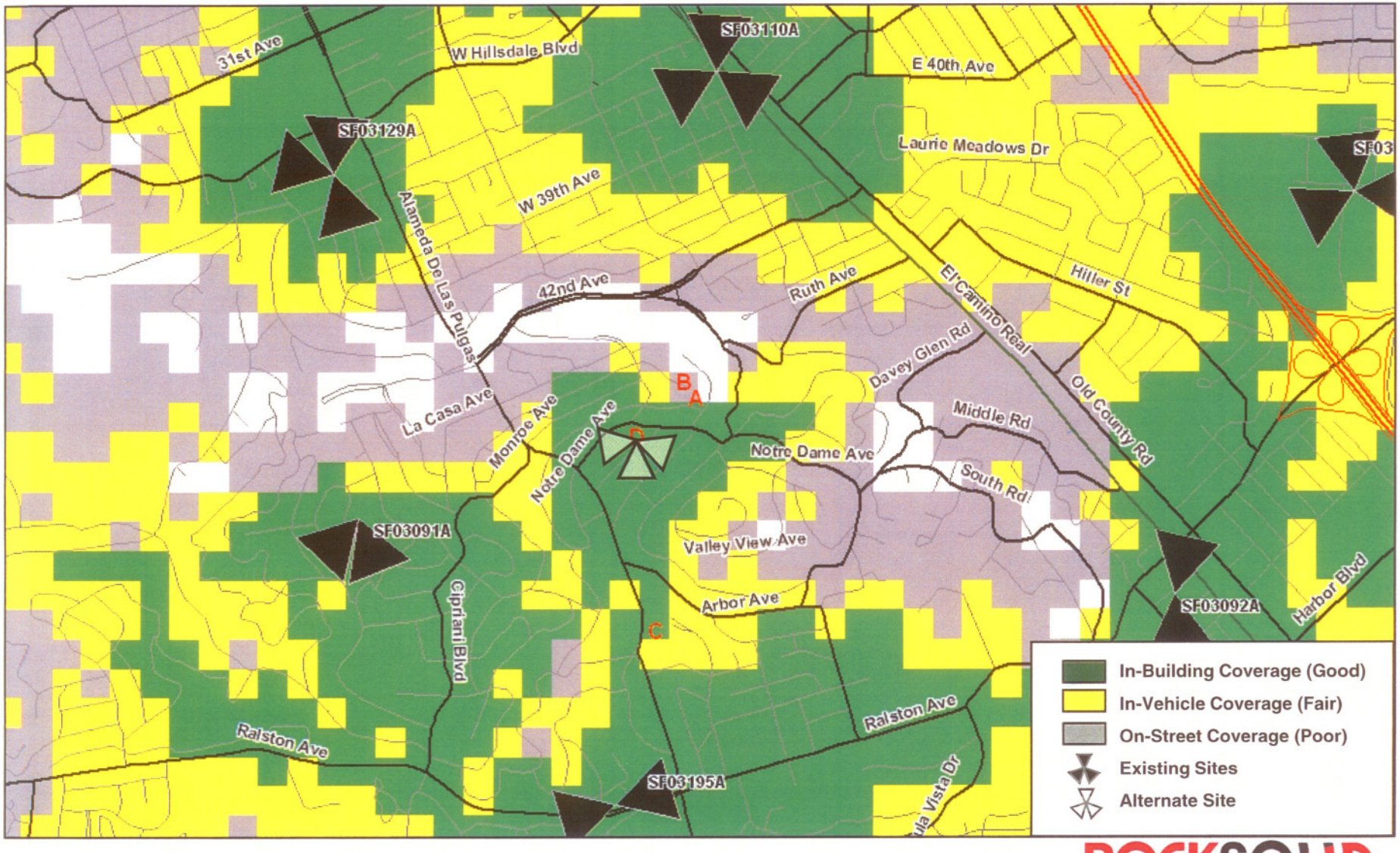
Coverage with Candidate D



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